REMARKS

This communication is a full and timely response to the aforementioned non-final Office Action dated January 9, 2008. By this communication, claims 23 and 48 are canceled without prejudice or disclaimer to the underlying subject matter and claims 21, 24, 46, and 49 are amended. Claims 1-16, 18-22, 24-42, and 43- 47, and 49-52 remain pending, where claims 17, 23, 42, and 48 were previously canceled. Reconsideration and allowance of this application are respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 21-25, 46-50, and 52 were rejected under 35 U.S.C. §103(a) as unpatentable over *Ngai* (U.S. Patent No. 6,263,023) in view of *Mine* (U.S. Patent Publication No. 2002/0122481). Applicants respectfully traverse this rejection.

Each of independent claims 21 and 46 are amended to include the subject matter previously recited in claims 23 and 48, respectively. In particular, claims 21 and 46 recite, among other features, that when a decoded picture header information for an encoded image slice indicates that the encoded image slice corresponds to redundantly-encoded regions of the image, the sliced decoding unit decodes the encoded image slice that corresponds to the redundantly-encoded regions if error occur in decoding another one of the plurality of encoded image slices that corresponds to the redundantly-encoded regions.

Beginning on page 5 of the Office Action, the Examiner addresses the aforementioned claim feature. The Examiner acknowledges that the *Ngai* patent fails to disclose the feature of redundantly-encoded regions of image data and relies on the *Mine* patent in an effort to remedy this deficiency. Upon review, however,

Applicants respectfully submit that the *Mine* patent does not teach the claimed features as alleged.

The *Mine* patent discloses that each macroblock of an image is assigned a level of importance, which corresponds to whether the macroblock contains a noticed region or a non-noticed region. A noticed region is given higher importance than a non-noticed region with respect to determining a quantizer scale. The images are then requantized based on the quantizer scale. The *Mine* document does not disclose, however, that decoding of a requantized image occurs based on whether another one of the requantized images contains errors. Rather, the combination of the *Mine* document and the *Ngai* patent disclose that all quantized image slices are decoded. Neither the *Mine* document nor the *Ngai* patent disclose or suggest a feature that is reasonably related to the decoding of requantized images based on errors contained within the images. For this reason, a *prima facie* case of obviousness has not been established.

To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, obviousness "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." ACS Hosp. Sys. V. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). For the above reasons, withdrawal of this rejection is respectfully requested.

Claims 1-16, 18-20, 26-41, 43-45, and 51 were rejected under 35 U.S.C. §103(a) as unpatentable over *Borgwardt* (U.S. Patent No. 5,949,490) and *Ngai* in view of *Mine*. Applicants respectfully traverse this rejection.

Contrary to the position taken in the Office Action, the combination of the *Borgwardt, Ngai* and *Mine* documents fails to establish a *prima facie* case of obviousness.

Independent claims 1 and 26 recite, among other features, dividing image data of an image into a plurality of regions and determining which of the regions are to be redundantly encoded, and determining structures of each of a plurality of slices to be used in encoding the regions of the image, wherein the slice structure corresponds to a shape of each of the plurality of slices.

Neither the *Borgwardt,* Ngai nor *Mine* documents disclose or suggest a feature that can reasonably be interpreted as analogous to the aforementioned claim feature. For example, the *Borgwardt* document teaches that a central rate controller divides up a target bit rate for an entire picture between slices of the picture to get an initial target bit rate for each slice based upon the complexities of the contained macroblocks. When the parallel processor finishes encoding a slice, it checks in with the central rate controller which updates the buffer fullness based on the check-in of all the macroblocks in all of the slices that were processed together. See *Borgwardt,* column 3, lines 5-30. The size of the slices is large enough to avoid an overload of messages passing back and forth but small enough to avoid too much inefficiency in the usage of the buffer. While making mention of size considerations of a slice, the *Borgwardt* document gives no insight into the shape of each slice of the picture.

The *Ngai* document discloses a method and system for decoding video data. The system receives video data that is already encoded into data slices and stores the data slices in memory based on slice addresses. The *Ngai* patent thus, fails to contemplate dividing image data into a plurality of regions and determining structure

for each of a plurality of slices to be used in encoding since the disclosed concept is focused on decoding and video data. As a result, this reference is incapable of performing the claimed feature.

The *Mine* document discloses that picture is divided into macroblocks such that each of the slices of one horizontal line of the picture consists of ten macroblocks. Here, the *Mine* patent discloses one available structure of each slice that includes size (ten macroblocks) and shape (horizontal line/parameters). In contrast, Applicants claims recite a step of determining one of a plurality of structures for each of a plurality of slices. Accordingly, Applicants' claimed feature does not read on the disclosure of the *Mine* document.

In summary, the *Borgwardt*, *Ngai*, and *Mine* document when applied individually or collectively, fail to disclose or suggest every element recited in Applicants' claims. In particular, even assuming arguendo that these documents are combinable, one of ordinary skill would not reasonably conclude that the resulting system could determine one of a plurality of structures for each of a plurality of slices to be used in encoding the regions of an image, as recited in Applicants' claims. As a result, a *prima facie* case of obviousness has not been established, and withdrawal of this rejection is respectfully requested.
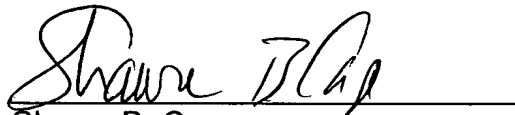
Conclusion

Based on at least the foregoing amendments and remarks, Applicants submit

that claims 1-16, 18-41, and 43-52 are allowable, and this application is in condition

for allowance. Accordingly, Applicants request a favorable examination and

consideration of the instant application. In the event the instant application can be

placed in even better form, Applicants request that the undersigned attorney be

contacted at the number below.

Respectfully submitted,

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Date: <u>April 9, 2008</u>   By: _____

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